

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A[[N]]n LSI testing apparatus for testing an electronic device comprising:

a power source ~~unit~~ for supplying a source voltage of direct current to said electronic device;

a detecting unit for detecting a source current with which said electronic device is supplied by said power source unit;~~and~~

a judging unit for judging quality of said electronic device[[,]]; and

~~wherein said power source unit comprises means for overlaying an overlaid signal with a predetermined period on said source voltage,~~and supplied to the electronic device, wherein said judging unit judges said quality of said electronic device on the basis of said source current detected by said detecting unit in case said electronic device is supplied with said source voltage on which said overlaid signal is overlaid.

2. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 1, wherein said power source unit comprises means for changing a signal level of said overlaid signal, and said judging unit judges said quality of said electronic device for each signal level of said overlaid signal.

3. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 1, wherein said power source unit comprises means for changing a frequency of said overlaid signal.

4. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 1, wherein said judging unit judges said quality of said electronic device on the basis of a difference between a source current, which should be supplied to said electronic device, in case said electronic device is supplied with said source voltage and a source current detected by said detecting unit in case said electronic device is supplied with said source voltage on which said overlaid signal is overlaid and a period of said overlaid signal.
5. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 1, wherein said judging unit judges said quality of said electronic device on the basis of a difference between a spectrum of a source current, which should be supplied to said electronic device, in case said electronic device is supplied with said source voltage on which said overlaid signal is overlaid and a spectrum of a source current detected by said detecting unit in case said electronic device is supplied with said source voltage on which said overlaid signal is overlaid.
6. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 1, wherein said judging unit judges said quality of said electronic device on the basis of a magnitude of a predetermined frequency component of said source current detected by said detecting unit in case said electronic device is supplied with said source voltage on which said overlaid signal is overlaid.
7. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 1 further comprising a pattern generating unit for providing a test pattern to said electronic device, wherein said judging unit judges said quality of said electronic device on the basis of said source current detected by said detecting unit under a condition, where said test pattern is provided to said electronic device.

8. (Currently Amended) [[AN]]The LSI testing apparatus as claimed in claim 7, wherein said electronic device comprises a plurality of semiconductor devices, and said pattern generating unit provides said electronic device with said test pattern by which all of said plurality of semiconductor devices operate at least once.
9. (Withdrawn) AN LSI testing apparatus as claimed in claim 1 further comprising an electromagnetic wave generating unit for generating an electromagnetic wave with a predetermined frequency, wherein said judging unit judges said quality of said electronic device on the basis of said source current detected by said detecting unit under a condition, where said electromagnetic wave generated by said electromagnetic wave generating unit is provided to said electronic device.
10. (Withdrawn) AN LSI testing apparatus as claimed in claim 9, wherein said frequency of said electromagnetic wave generated by said electromagnetic wave generating unit is approximately the same as a frequency of said overlaid signal.
11. (Withdrawn) AN LSI testing apparatus as claimed in claim 9, wherein said electromagnetic wave generating unit comprises means for changing an intensity of said electromagnetic wave, which is generated.
12. (Withdrawn) AN LSI testing apparatus as claimed in claim 9, wherein said electromagnetic wave generating unit comprises means for changing a frequency of said electromagnetic wave, which is generated.
13. (Withdrawn) AN LSI testing apparatus as claimed in claim 9, wherein said electromagnetic wave generating unit comprises a first generator for generating an electromagnetic wave with a first frequency and a second generator for generating an electromagnetic wave with a

second frequency, wherein a position in which said first generator is provided is different from a position in which said second generator is provided.

14. (Withdrawn) AN LSI testing apparatus as claimed in claim 13, wherein said electromagnetic wave generating unit comprises a magnetic field adjusting unit for adjusting at least one of a position and a direction of said first generator and said second generator.
15. (Withdrawn) AN LSI testing apparatus as claimed in claim 9, wherein said judging unit judges said quality of said electronic device further on the basis of said frequency of said electromagnetic wave generated by said electromagnetic wave generating unit.
16. (Withdrawn) AN LSI testing apparatus as claimed in claim 1, further comprising an alternating electric field generating unit for generating an alternating electric field with a predetermined frequency, wherein said judging unit judges said quality of said electronic device on the basis of said source current detected by said detecting unit under a condition, where said alternating electric field generated by said alternating electric field generating unit is provided to said electronic device.
17. (Withdrawn) AN LSI testing apparatus as claimed in claim 16, wherein said frequency of said alternating electric field generated by said alternating electric field generating unit is approximately the same as a frequency of said overlaid signal.
18. (Withdrawn) AN LSI testing apparatus as claimed in claim 16, wherein said alternating electric field generating unit comprises means for changing an intensity of said alternating electric field.

19. (Withdrawn) AN LSI testing apparatus as claimed in claim 16, wherein said alternating electric field generating unit comprises means for changing a frequency of said alternating electric field.
20. (Withdrawn) AN LSI testing apparatus as claimed in claim 16, wherein said judging unit judges said quality of said electronic device further on the basis of said frequency of said alternating electric field generated by said alternating electric field generating unit.
21. (Withdrawn) AN LSI testing apparatus as claimed in claim 15, wherein said electronic device comprises a plurality of semiconductor devices to which said power source unit supplies said source current on which said overlaid signal is overlaid, and said alternating electric field generating unit comprises an electric field probe for providing said alternating electric field to an input to at least one of said plurality of semiconductor devices.